UTAH CTE SKILL CERTIFICATION

PLUMBING

STUDENT PERFORMANCE EVALUATION

TEST #516

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student **must be evaluated** on the required performance standards. Performance standards may be completed and **evaluated anytime during the course**.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
  1= highly competent Successfully demonstrated without supervision
  2= moderately competent Successfully demonstrated with limited supervision
  3= limited competence Demonstrated with close supervision
  4= not competent Demonstration requires direct instruction and supervision
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
- The **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
- The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more "N's"** on the performance standards.
- The signed performance evaluation sheet(s) **MUST** be kept in the teachers' file for two years.
- A copy is also kept on file with the school's CTE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on ALL performance standards and 80% on the written test will be issued a CTE Skill Certificate.

460501-01 Students will receive an orientation to the plumbing trade.	**1**	**2**	**3**	**4**
Describe the history of the plumbing trade.				
Identify the stages of progress within the plumbing trade.				
Identify the responsibilities of a person working in the construction industry.				
State the personal characteristics of a professional.				
Explain the importance of safety in the construction industry.				

460501-02 Students will be able to understand and demonstrate the use of plumbing tools.	**1**	**2**	**3**	**4**
Identify the basic hand and power tools used in the plumbing trade.				
Demonstrate the proper maintenance procedures to be used for hand and power tools.				
Explain safety as it applies to plumbing tools.				

460501-03 Students will be able to understand and demonstrate the use of plumbing math.	**1**	**2**	**3**	**4**
Identify the parts of a fitting and use common pipe measuring techniques.				
Use fitting dimension tables and a framing square to determine fitting allowances and pipe makeup.				
Calculate end-to-end measurements by figuring fitting allowances and pipe makeup.				
Use a framing square to find the center of fittings.				
Figure 45-degree offsets and travel using the Pythagorean theorem.				
Figure 45-degree offsets and travel using the constant method.				
Figure 45-degree offsets and travel using a framing square or tape measure.				

460501-04 Students will be able to understand and use plumbing drawings.	**1**	**2**	**3**	**4**
Identify pictorial (isometric and oblique), schematic, and orthographic drawings, and discuss how different views are used to depict information about objects				
Identify the basic symbols used in schematic drawings of pipe assemblies.				
Explain the types of drawings that may be included in a set of plumbing drawings and the relationship between the different drawings.				
Interpret plumbing-related information from a set of plumbing drawings.				
Convert plan view drawings to simple isometric drawings.				
Use an architect's scale to draw lines to scale and to measure lines drawn to scale.				
Discuss how local code requirements apply to certain drawings.				

460501-05 Students will be able to understand and demonstrate the use of plastic pipe a fittings.	**1**	**2**	**3**	**4**
Identify the common types of materials and schedules of plastic piping.				
Identify the common types of fittings and valves used with plastic piping.				
Identify and determine the kinds of hangers and supports needed for plastic piping.				
Identify the various techniques used in hanging and supporting plastic piping.				
Demonstrate the ability to properly measure, cut, and join plastic piping.				
Follow basic safety precautions for the installation, operation, and maintenance of plastic tubing.				
Identify the hazards and safety precautions associated with plastic piping.				

	460501-06 Students will be able to understand and demonstrate the use of copper pipe and	**1**	**2**	**3**	**4**
	Select the correct types of materials for copper piping systems.				
	Identify types of fittings and valves and their uses.				
	Select the correct hanger or support for the application.				
	Select the appropriate personal protective equipment for working with copper piping.				
	Correctly measure, cut, ream, and join copper piping.				

	460501-07 Students will be able to understand and demonstrate the use of fixtures and faucets.	**1**	**2**	**3**	**4**
	Identify the basic types of materials used in the manufacture of plumbing fixtures.				
	Discuss common types of sinks, lavatories, and faucets.				
	Discuss common types of bathtubs, bath-shower modules, shower stalls, and shower baths.				
	Discuss common types of toilets, urinals, and bidets.				
	Discuss common types of drinking fountains and water coolers.				
	Discuss common types of garbage disposals and domestic dishwashers.				

	460501-08 Students will be able to understand drain, waste, and vent (DWV) Systems.	**1**	**2**	**3**	**4**
	Explain how waste moves from a fixture through the drain system to the environment.				
	Identify the major components of a drainage system and describe their functions.				
	Identify types and parts of traps and explain the importance of traps, and how traps lose their seals.				
	Identify the various types of DWV fittings and describe their application.				

	460501-09 Students will be able to understand water, distribution systems.	**1**	**2**	**3**	**4**
	Discuss how water moves from the source, through the water distribution system, and to the fixture.				
	Identify the major components of water distribution system and describe the function of each component.				
	Explain the relationships between the components of a water distribution system.				

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Instructor Signature: Date:

Student Signature: Date:

School: